

## JOHN MACOUN, 1832-1920

BY R. M. ANDERSON

Professor John Macoun, M.A., F.L.S., F.R.S.C., the dean of Canadian naturalists, died at his home in Sidney, Vancouver Island, British Columbia, on July 18, 1920, aged a little over eighty-eight years. He was born near Belfast, Ireland, April 17, 1832, and came to Canada with his parents in 1850. A number of his early years he spent in teaching school, terminating that career as professor of natural science at Albert College, Belleville, Ontario, in 1882, at which time he became naturalist of the Geological Survey of Canada.

Before that time, however, he had done considerable work for the Government, joining Sir Sanford Fleming's exploratory party in 1872 at Port Arthur, and crossing the plains. From Edmonton he went with a small party through the Peace River Pass to the coast. Three years later he again crossed the continent traveling from the Pacific coast eastward. In 1879, 1880 and 1881, he exhaustively explored the little known parts of the Great Northwest country, and his capable reports had a great deal to do with making known the immense potential resources of that vast territory which is now the great grain-producing region of Canada. From his profound knowledge of field botany, the relation of wild plant ecology to agriculture, and the time required for ripening of seeds of the native flora, he was fully convinced of the agricultural possibilities of the prairie provinces of Canada, at a time when the Canadian Pacific Railroad was still unbuilt, and the future of the great west of Canada was considered by most people a speculative dream.

In devoting his energies to diffusing correct knowledge of the west, Professor Macoun was for a long time regarded as a more or less visionary enthusiast, but time has justified his prophecies and he is entitled to rank as an empire builder of the best sort. His book entitled "Manitoba and the Great North-west," 687 pages, published privately by World Publishing Co., Guelph, Ontario, 1882, gives a graphic description of the pioneer conditions on the prairies, and much of natural history interest. Chapter XX, Mammals of the North-west, pp. 324-353; Chapter XXI, Birds of the North-west, pp. 354-373; and Chapter XXII, Notes on Reptiles, Fishes and Insects, pp. 374-398, give much valuable data of long-gone faunal conditions.

The Annotated Catalogue and Guide to the Publications of the Geological Survey of Canada 1845-1917, gives 61 titles of Professor

Macoun's writings on natural history subjects, covering all parts of the Dominion from the Atlantic maritime provinces to the Yukon. Many of these are buried in the Report of Progress, Annual Reports and Summary Reports of the Survey from 1875 to 1915. The reports of earlier times particularly, when field trips were largely reconnaissance of virgin fields and before government publications were as specialized as at present, were often enlivened by much varied information of general interest by keen observers like Macoun. His most important technical papers were the Catalogue of Canadian Plants, Part I, *Poly-petalae*, 1883; Part II, *Gamopetalae*, 1884; Part III, *Apetalae*, 1886; Part IV, *Endogens*, 1888; Part V, *Acrogens*, 1890; Part VI, *Musci*, 1892; Part VII, *Lichenes* and *Hepaticae*, 1902.

Professor Macoun resided in Ottawa until 1912, when failing health caused him to move to the milder climate of British Columbia. Here he continued actively at work, specializing on the mosses and fungi of British Columbia, and up to the last months of his life contributed articles on local botany to the press. For about forty years he was assisted by his son, Mr. James Melville Macoun, C.M.G., F.L.S., also a noted naturalist and recently botanist and chief of the Biological Division, Geological Survey of Canada, and the work of the Macouns founded the National Herbarium of Canada and built it up to over 100,000 specimens.

The late Professor Macoun, while best known as a botanist, was one of the old school of naturalists who took the whole field of natural science for his province. Writing of him as a field worker, one of his old scientific friends said in 1917, "He did not do much work with the microscope, but few men have the power to do what he could with the eye. His power and facility to set a present percept against a remembered image and perceive the likenesses and differences was marvellous. And he can exercise the power yet." In addition to his botanical work as naturalist of the Geological Survey from 1882, he gathered a collection of several thousand birds and about 2,000 mammals, before giving up active museum work. He was an associate member of the American Ornithologists' Union from 1883 for many years. As an ornithologist he contributed many notes to the old *Ottawa Naturalist*, and his best known work was the Catalogue of Canadian Birds, Part I, Water Birds, Gallinaceous Birds and Pigeons, 1900; Part II, Birds of Prey, Woodpeckers, Flycatchers, Crows, Jays and Blackbirds, 1903; and Part III, Sparrows, Swallows, Vireos, Warblers, Wrens, Titmice and Thrushes, 1904. As this contained most of the published refer-

ences to distribution and habits of Canadian birds, and a large amount of new material from Professor Macoun's numerous correspondents as well as a great deal of information based on his own extensive field notes and experience in all parts of Canada, there was such a demand for this publication that it was soon out of print, and in 1909 a new revised and enlarged edition of 761 pages was published in one volume, both English and French editions. The 1909 edition bears also the name of James M. Macoun, assistant naturalist, as collaborator.

As a mammalogist, Professor Macoun did not publish so much, although he was keenly interested in the mammals of Canada. He was a charter member of the American Society of Mammalogists. Many years ago he considered the publication of a catalogue of Canadian mammals, somewhat similar to his Catalogue of Canadian Birds, and began a list of species, working up a partial synonymy and notes on distribution, but advancing years and lack of sufficient material caused him to lay this work aside when he left Ottawa. Professor Macoun was always liberal with his material, whether botanical or zoological, and a good part of the rather extensive small mammal material collected by himself and his son and by Mr. William Spreadborough, his field assistant for many years, notably along the International Boundary in Saskatchewan, Alberta and British Columbia, was sent to Washington from year to year for comparison by the United States Government scientists, with many of whom he carried on an extensive correspondence.

Professor Macoun received many honours in his time. He was a charter member of the Royal Society of Canada, a member of the Linnæan Society, and received the degree of M.A. from Syracuse University. In consideration of his distinguished scientific work for his government, a special Order-in-Council was passed at the time Professor Macoun left Ottawa, retaining him on the active list on full pay for life.

One genus, *Macounastrum*, and forty species of plants bear his name, as do two mollusks, *Boreotrophon macouni* and *Turbonilla (Pyrogalampros) macouni* Dall and Bartsch; one starfish, *Leptasterias macouni* Verrill; one beetle, one butterfly, *Oneis macounii* Edwards; and a viperfish, *Chauliodus macouni* Bean.

In 1862 Professor Macoun married Miss Ellen Tyrrell, who survives him. In addition he is survived by his son, Mr. W. T. Macoun, Dominion horticulturist, Ottawa, and three daughters, Mrs. A. O. Wheeler of



Sidney, B. C., Mrs. R. A. Kingman, Wallingford, Vermont, and Mrs. Wm. M. Everall, Victoria, B. C. His eldest son and lifelong assistant Mr. James M. Macoun died at Ottawa in January, 1920.

*Victoria Memorial Museum, Dept. of Mines, Ottawa, Canada.*

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## GENERAL NOTES

### NOTES ON THE HABITS OF *BLARINA BREVICAUDA*

While I was in camp at Lake Missanag, Ontario, in August and September, 1919, two short-tailed shrews (*Blarina brevicauda*) came about the tent frequently, and I was able to learn something of the habits of these usually rather elusive little mammals.

They were active both by day and night. By day they avoided brightly lighted spots, traveling to the tent under the cover of dead leaves, herbs, and logs; and passing over open places like a flash. In the tent they kept mostly close to the side-walls, or to the pile of wood beside the stove. They were ceaselessly active, never resting for a moment unless engaged in eating something. They kept up a continual, rather musical, chirping squeak, which resembled very strongly the twitter of American goldfinches. This "song" of theirs was loud enough that we could hear them coming some time before they entered the tent.

The Blarinas fed on insects, both living and dead. They caught and consumed all the crickets (*Gryllus assimilis* and *Nemobius fasciatus*) which previously had been common under the sod-cloth along the base of the walls of the tent, and also devoured any dead insects which I had rejected after killing in the cyanide bottle. On one occasion I saw one of them jump repeatedly at a sphinx larva which was suspended on a dead poplar twig a few inches above the ground, and at last succeed in pulling it down and into a tunnel in the dried grass. They ate with avidity anything of an animal nature, including pieces of salty chipped beef, and their particular delight was to get into the frying-pan and feed on the cold fat which it contained. So engrossed did they become in their gormandizing of this fat that they paid no heed to my presence and several times I took up the pan and walked about with it while they were thus engaged. They were not at all expert climbers and it was quite a feat for them to clamber over the high edge of the frying-pan. Once on top of the edge they tumbled in head-first.

In hunting for food they seemed to depend entirely on their sense of smell, and when thus prospecting they wriggled their long pink snouts continuously and inserted them into every nook and crevice. They appeared to use their eyes merely in avoiding well-lighted situations.—A. BROOKER KLUGH, *Queen's University, Kingston, Canada.*